

Practice A

For use with pages 114–120

- Number Cube** What is the probability that you will roll a 5 on a toss of a six-sided number cube? What are the odds?
- Raffle Tickets** You buy 5 raffle tickets. What is the probability that you will win if 200 tickets were sold? What are the odds?
- Gymnastics** During a difficult release move, a gymnast has fallen from the parallel bars in 2 of the 12 competitions this season. The state meet is next week. What is the probability that she will successfully complete the release move?
- Fourth Down Conversions** During a game, the Pittsburgh Steelers converted 4 of 12 fourth downs into first downs. With only minutes left in the game, it is fourth down again and they must make a first down to continue their drive. What is the probability that they will make the first down?
- Defects** A machine shop averages 2 defects per million parts made. If you randomly select a part from a box, what is the probability that the part is defective?
- Population of Iowa** The population of the United States is about 265 million. The probability that a citizen lives in Iowa is 0.011. What is the population of Iowa?
- Environment** In 1995 there were 1227 hazardous waste sites, of which 1074 were nonfederal sites. The newspaper carried a story about a hazardous waste site. What are the odds that it was a federal site?
- Carnival Game** You throw a beanbag at a wall with 8 colored squares, each with an area of $\frac{1}{4}$ ft². If you hit a square, you win a prize. The area of the wall is 40 ft². What is the probability of winning a prize?

Favorite Subjects Use the following information.

Senior class members were asked to name their favorite subject. The results of the survey of 220 students are listed in the table below.

Subject	English	Social studies	Science	Math	Foreign language	Gym	No preference
Number	30	40	50	35	20	10	35

- What is the probability that a randomly chosen student said science?
- What is the probability that a randomly chosen student said English?
- What is the probability that a randomly chosen student said math?
- What is the probability that a randomly chosen student did not say math?

Movies Use the following information.

The local movie theater did a survey of students to determine what their favorite types of movies were. The results of the survey are shown in the circle graph at the right.

- How many students were surveyed?
- What is the probability that a randomly chosen student said comedy?
- What is the probability that a randomly chosen student did not say horror?

